

Release notes for ENDF/B Development n-073-Ta_182
evaluation



April 26, 2017

- **psyche** Warnings:

1. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 107 / THE CALCULATED Q 8.45450E+06 DISSAGREES WITH THE GIVEN Q -8.29400E+06 (0): Iffy Q

```
FILE 3
SECTION 107
THE CALCULATED Q 8.45450E+06 DISSAGREES WITH THE GIVEN Q -8.29400E+06
```

- **fudge-4.0** Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel

WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"

2. Potential scattering hasn't converted, you need more L's!
resonances / resolved (Error # 1): potentialScatteringNotConverged

WARNING: Potential scattering hasn't converged by L=0 at E=35.0 eV, xs[0]/xs[0]=100.0% > 0.1%

3. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.17%

- **fudge-4.0** Errors:

1. Calculated and tabulated Q values disagree.
reaction label 10: n[multiplicity:'2'] + Ta181 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6168840.888946533 eV vs -6.0664e6 eV!

2. Calculated and tabulated Q values disagree.
reaction label 11: n[multiplicity:'3'] + Ta180 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -13745598.32104492 eV vs -1.3724e7 eV!

3. Calculated and tabulated Q values disagree.
reaction label 12: Ta183 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 6828275.502929688 eV vs 6.93e6 eV!

4. Calculated and tabulated Q values disagree.
reaction label 13: He4 + Lu179-s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 8171414.327911377 eV vs -8.294e6 eV!

- **njoy2012** Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
group...compute self-shielded group-averaged cross-sections (0): GROUPT/conver (0)

```
---message from conver---cannot do complete particle production for mt= 16
only mf4/mf5 provided
```

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group...compute self-shielded group-averaged cross-sections (1): GROUPT/conver (0)

```
---message from conver---cannot do complete particle production for mt= 17
only mf4/mf5 provided
```

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group...compute self-shielded group-averaged cross-sections (2): GROUPT/conver (0)

```
---message from conver---cannot do complete particle production for mt= 91
only mf4/mf5 provided
```

- **acelst Warnings:**

1. generic warning message
0: Warning

ACELST WARNING - More than one range for MF/MT	6	16
ACELST WARNING - More than one range for MF/MT	6	17